



STATE OF WASHINGTON  
**STATE BUILDING CODE COUNCIL**

Washington State Energy Code Development  
**Standard Energy Code Proposal Form**

Jan 2022

Log No. 21-GP3-028

Code being amended: ☒ Commercial Provisions ☐ Residential Provisions

Code Section # C503.5

Brief Description:

*To remove EPCA preemption conflicts based on appliance energy source for replacement and altered water service systems.*

Proposed code change text: (Copy the existing text from the Integrated Draft, linked above, and then use underline for new text and ~~strikeout~~ for text to be deleted.)

**C503.5 Service water heating equipment.** All new service water heating systems, equipment, and components of existing systems that are altered or replaced shall comply with Section C404, C408.3, C409.5, and C501.6. Additions or alterations shall not be made to an existing service water heating system that will cause the existing system to become out of compliance.

EXCEPTION: The following equipment is not required to comply with Section C404.2.1:

1. Replacement of a single ~~electric resistance or fuel-fired~~ service water heating appliance with a unit that is the same type and has the same or higher efficiency and the same or lower capacity, provided there are no other alterations made to the existing service water heating system size or configuration.

2. Replacement of any of the following water heater appliances:

2.1. Electric water heaters with an input of 12 kW or less.

~~2.2. Gas storage water heaters with an input of 75,000 Btu/h or less.~~

~~2.3. Gas instantaneous water heaters with an input of 200,000 Btu/h or less and 2 gallons or less of storage.~~

Purpose of code change:

*C503.4.6 as currently written "unduly burdens interstate commerce" under EPCA because it places an increased economic expense on replacement gas-fired service water heating systems. No Cost Benefit analysis was provided to analyze the expense of a retrofit to replace existing gas-fired water service systems with equivalent electric appliances.*

Your amendment must meet one of the following criteria. Select at least one:

☐ Addresses a critical life/safety need.

☒ Consistency with state or federal regulations.

☐ The amendment clarifies the intent or application of the code.

☐ Addresses a unique character of the state.

☐ Addresses a specific state policy or statute.  
(Note that energy conservation is a state policy)

☐ Corrects errors and omissions.

Check the building types that would be impacted by your code change:

- |  |   |
|--|---|
| <input type="checkbox"/> Single family/duplex/townhome         | <input checked="" type="checkbox"/> Commercial / Retail |
| <input checked="" type="checkbox"/> Multi-family 1 – 3 stories | <input checked="" type="checkbox"/> Institutional       |
| <input checked="" type="checkbox"/> Multi-family 4 + stories   | <input checked="" type="checkbox"/> Industrial          |

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## **Economic Impact Data Sheet**

**Is there an economic impact:** ☒ Yes ☐ No

Briefly summarize your proposal's primary economic impacts and benefits to building owners, tenants, and businesses. If you answered "No" above, explain your reasoning.

*Provides more appliance choices for designers and builders to select equipment that best fits the needs of the specific building type and use to provide a more affordable installation cost and long term operational costs.*

Provide your best estimate of the **construction cost** (or cost savings) of your code change proposal? (See OFM Life Cycle Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). **Webinars on the tool can be found [Here](#) and [Here](#)**)

\$[Click here to enter text.](#)/square foot (For residential projects, also provide \$[Click here to enter text.](#)/ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

Provide your best estimate of the **annual energy savings** (or additional energy use) for your code change proposal?

[Click here to enter text.](#)KWH/ square foot (or) [Click here to enter text.](#)KBTU/ square foot

(For residential projects, also provide [Click here to enter text.](#)KWH/KBTU / dwelling unit)

Show calculations here, and list sources for energy savings estimates, or attach backup data pages

List any **code enforcement** time for additional plan review or inspections that your proposal will require, in hours per permit application:

**Small Business Impact.** Describe economic impacts to small businesses:

**Housing Affordability.** Describe economic impacts on housing affordability:

**Other.** Describe other qualitative cost and benefits to owners, to occupants, to the public, to the environment, and to other stakeholders that have not yet been discussed: